Denis Babin Appl. No. 10/813,165

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (currently amended) An injection molding system comprising:

an injection molding machine including a machine nozzle for injecting a melt stream;

a manifold having at least one manifold melt inlet for receiving the melt stream and having at least one melt channel for distributing the melt stream; and

an anti-drool mechanism positioned between the machine nozzle and the manifold melt inlet including,

a melt passage for communicating the melt stream from the machine nozzle to the manifold melt inlet,

a fixed pin disposed <u>entirely</u> within the melt passage and sized so that the melt stream flows around the pin, the pin having a head portion configured to be received within the machine nozzle, and

a movable shut-off collar disposed at least partially within the melt passage and surrounding the pin, wherein a sealing surface of the shut-off collar contacts a sealing surface of and the head portion of the pin to stop configured to control the flow of the melt stream through the melt passage.

- 2. (original) The system according to claim 1, wherein the shut-off collar is springloaded.
- 3. (currently amended) The system according to claim 2, wherein the shut-off collar is moved downstream by engagement with the machine nozzle such that contact between the shut-off collar sealing surface and the pin head portion sealing surface is broken when the pin head portion is received within the machine nozzle to allow the melt stream to flow through the anti-drool mechanism.
- 4. (original) The system according to claim 1, wherein the shut-off collar is actuated using a pneumatic apparatus.
- 5. (original) The system according to claim 1, wherein the shut-off collar is actuated using one of a hydraulic, pneumatic, electromechanical, and mechanical apparatus.

- 6. (original) The system according to claim 1, wherein a locating ring is disposed between the anti-drool mechanism and the injection molding machine, the locating ring configured to allow the machine nozzle to pass therethrough and to guide the movement of the shut-off collar.
- 7. (previously presented) The system according to claim 1, wherein the melt passage of the anti-drool mechanism is divided into multiple melt passages adjacent to the manifold melt inlet.
- 8. (original) The system according to claim 1, wherein the machine nozzle injects the melt stream into a cold runner system.
- 9. (currently amended) An injection molding system comprising:

an injection molding machine including a retractable machine nozzle for selectively engaging an anti-drool mechanism, wherein the machine nozzle delivers a melt stream of moldable material to the injection molding system by engaging the anti-drool mechanism; and

a manifold having at least one manifold melt inlet downstream of the anti-drool mechanism for receiving the melt stream and at least one manifold melt channel for distributing the melt stream;

the anti-drool mechanism comprising

- a melt passage;
- a fixed pin disposed within the melt passage and sized so that the melt stream flows around the pin, the pin having a base portion that defines a melt channel there through for communicating the melt stream from the melt passage of the anti-drool mechanism to the melt inlet of the manifold a head portion configured to be received within the machine nozzle; and

a moveable shut-off collar disposed at least partially within the melt passage of the anti-drool mechanism and surrounding the pin, wherein a sealing surface of the shut-off collar contacts a sealing surface of and the head portion of the pin to stop configured to control the flow of the melt stream through the anti-drool mechanism.

10. (original) The system according to claim 9, wherein the shut-off collar is springloaded.

- 11. (currently amended) The system according to claim 10, wherein the shut-off collar is moved downstream by engagement with the machine nozzle such that contact between the shut-off collar sealing surface and the pin sealing surface is broken when the pin head portion is received within the machine nozzle to allow the melt stream to flow through the anti-drool mechanism.
- 12. (previously presented) The system according to claim 9, wherein engagement of the retractable machine nozzle with the shut-off collar causes the shut-off collar to retract and allow flow of the melt stream between the machine nozzle and the melt passage of the anti-drool mechanism.

Claims 13-16 (canceled).

17. (currently amended) An injection molding system comprising:

an injection molding machine having an injection unit and a machine nozzle;

an injection manifold having an inlet and a plurality of melt channels, wherein
the inlet receives a melt from the machine nozzle;

a sprue bushing disposed between the machine nozzle and the manifold, said sprue bushing having a melt passage that is in fluid communication with the manifold inlet;

a fixed pin <u>having a shaft portion</u> disposed at <u>least partially</u> within the sprue bushing melt passage, said fixed pin having a pin head portion <u>on an upstream end of the shaft portion</u> and a base portion on a downstream end of the shaft portion, wherein the base portion includes a melt channel there through; and

a shut-off collar disposed at least partially within said sprue bushing melt passage, said shut-off collar having a sealing surface, and said shut-off collar being movable between a first closed position, wherein the sealing surface makes contact with the pin head portion to prevent the melt from entering or leaving the sprue bushing melt passage, and a second open position, wherein there is substantially no contact between the pin head portion and the sealing surface to allow the melt to flow through the sprue bushing melt passage.

- 18. (original) The system according to claim 17, wherein said shut-off collar is actuated by movement of the machine nozzle.
- 19. (original) The system according to claim 17, wherein the pin head portion is received by the machine nozzle.
- 20. (new) The system according to claim 1, wherein the fixed pin has a base portion that defines a melt passage there through for communicating the melt stream from the melt passage of the anti-drool mechanism to the melt inlet of the manifold.
- 21. (new) The system according to claim 3, wherein the head portion of the pin is received within the machine nozzle when the shut-off collar is moved downstream by engagement with the machine nozzle.
- 22. (new) The system of claim 9, wherein the pin has a head portion that is received within the machine nozzle when the shut-off collar is moved downstream by engagement with the machine nozzle.